

WORLAND FIELD OFFICE: GRASS CREEK RMP

The Record of Decision and Approved Resource Management Plant (RMP) for the Grass Creek Resource Area of the Worland BLM Office was signed in September 1998 (BLM 1998). The RMP provides the management direction for approximately 968,000 acres of public land surface and 1,171,000 acres of federal mineral estate. The Worland Field Office occurs in the north-central portion of Wyoming, occupying portions of Big Horn, Hot Springs, Park, and Washakie counties.

Environmental Baseline

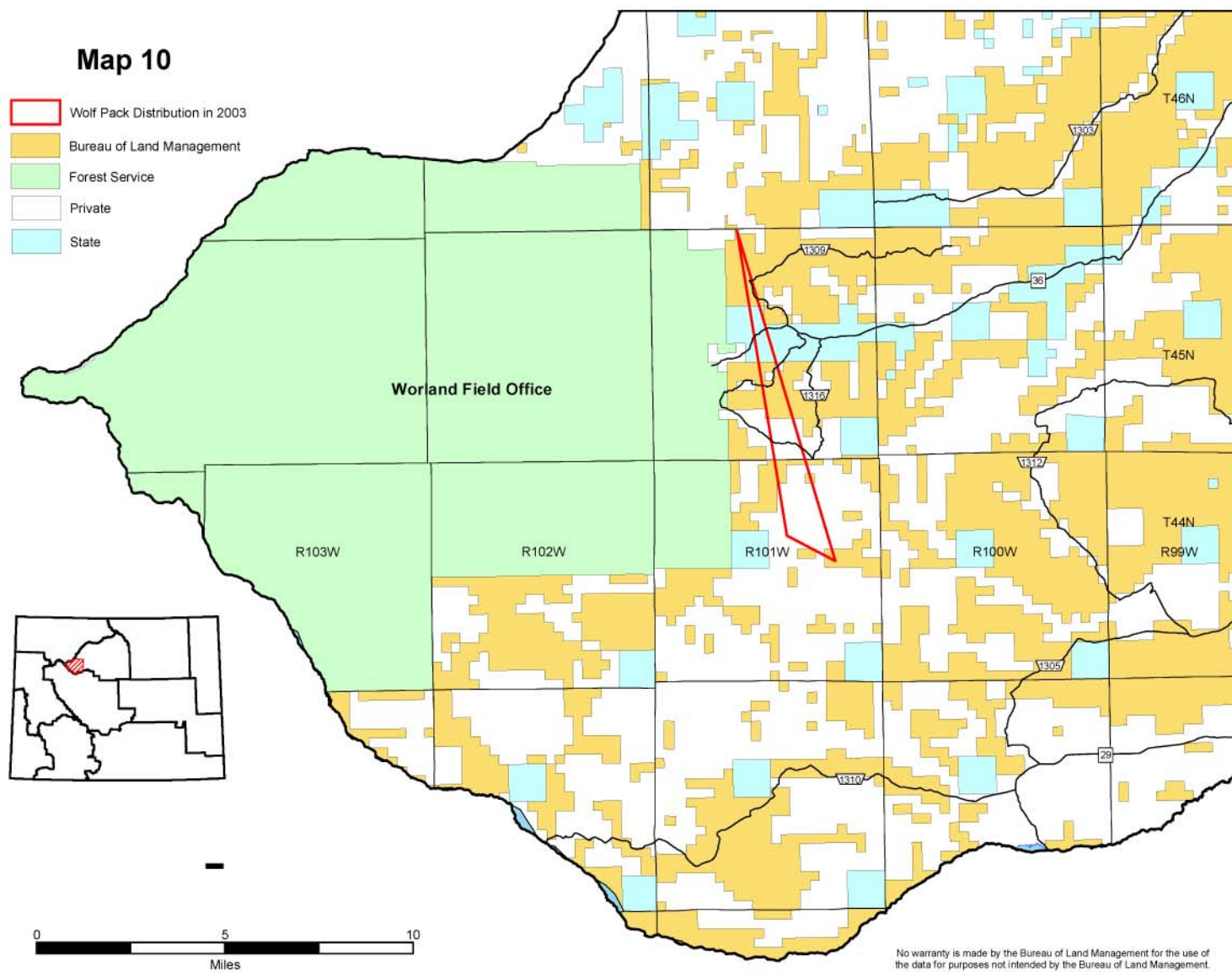
This section presents a summary of the known wolf distribution, and an analysis of the effects of past and ongoing human activities (including Federal, State, tribal, local and private) that may influence wolves and their habitats in the Grass Creek RMP. Wolves have been sighted southwest of Meteteetsee, east to Ten Sleep and up into the Bighorn Mountains close to the top of Powder River Pass, and in the basin around Worland (Stephens 2004). Wolf packs first appeared in the FO in 2003 (**Maps 2-5**) (USFWS et al. 2004). A very small home range is delineated at the base of the Absarokas, by Sugarloaf Mountain, and a partial circle is mapped in the Big Horns that overlaps into the Buffalo FO (**Map 10**). The circle indicates the center of known activity when telemetry data are not available. Subsequent to the mapping effort, a third pack, the Washakie pack from the Shoshone National Forest in the Dubois area, expanded their range into the Worland FO for about a month (Stephens 2004). The surface area of the mapped wolf packs on BLM land is 868 acres; it is compromised in accuracy by not including the area of the sojourn of the Washakie pack into the FO, and by the estimate provided by the circle.

Existing Conservation Measures

The following section presents measures included in the Grass Creek RMP that may directly or indirectly minimize impacts to wolves or their prey:

- (a) "The BLM will participate with the FWS in the evaluation and designation of critical habitat for threatened or endangered species on BLM-administered lands. If proposed surface-disturbing or disruptive activities could affect these species, the BLM will consult with the FWS as required by the Endangered Species Act." (BLM 1998, p. 22).
- (b) "No activities or surface use will be allowed on that portion of the authorization area identified within (legal description) for the purpose of protecting (e.g., sage/sharp-tailed grouse breeding grounds, and/or other species/activities) habitat" (BLM 1998, Appendix 3, p. 60).
- (c) "Portions of the authorized use area legally described as (legal description), are known or suspected to be essential habitat for (name) which is a threatened or endangered species. Prior to conducting any onsite activities, the lessee/permittee will be required to conduct inventories or studies in accordance with BLM and U.S. Fish and Wildlife Service guidelines to verify the presence or absence of this species. In the event that (name) occurrence is identified, the lessee/permittee will be required to modify operational plans to include the protection requirements of this species and its habitat (e.g., seasonal use restrictions, occupancy limitations, facility design modifications)" (BLM 1998, Appendix 3, p. 60).
- (d) "The following conditions would be evaluated during the review process. The degree to which any of these conditions apply to a proposed ownership adjustment may or may not make the lands suitable for sale, exchange, transfer, or acquisition - Tracts identified as potential recovery habitat for federally listed endangered, threatened, candidate, or emphasis species" (BLM 1998, Appendix 4, p. 75).

Map 10. Worland FO and Buffalo FO Wolf Pack Polygons in 2003 (adapted from USFWS et al. 2004, Figure 3).



Analysis of Proposed Management Actions and Effects

The RMP includes descriptions of each management prescription applied within the FO. The following text briefly summarizes the activities and any specific mitigation measures associated with each management prescription. The Wyoming BLM Mitigation Guidelines for Surface Disturbing and Disruptive Activities will be applied to all surface-disturbing or disruptive activities. As described previously in this document, these guidelines include timing limitations and "no surface occupancy" restrictions that will minimize potential effects to wolves and their habitats. Refer to the Grass Creek RMP for a complete explanation of each prescription.

Air Quality Management

Management Action

No specific requirements or guidelines that are applicable to wolf mitigation are included for this resource in the RMP.

Effects Analysis

Actions related to air quality management will not result in negative impacts to wolf behavior or habitats. Implementation of these management actions will likely result in maintaining or improving environmental conditions throughout the FO, which may have secondary benefits to wolves and their prey.

Determination

Implementation of air quality management actions, as presented in the Grass Creek RMP (1998), is **not likely to jeopardize the continued existence** of the wolf.

Cultural, Paleontological, and Natural History Resources Management

Management Action

No specific requirements or guidelines applicable to wolf mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with cultural resource management may detrimentally affect wolf behavior by causing wolves to avoid or abandon areas where management actions are implemented. Denning and rendezvous sites are the most sensitive habitat elements for wolves, as these are often used repeatedly over the years and are relatively limited across the landscape. Disturbance and destruction of denning habitats is possible, however, the likelihood is extremely low.

Determination

Implementation of cultural resource management actions, as presented in the Grass Creek RMP (1998), is **not likely to jeopardize the continued existence** of the wolf.

Fire Management

Management Action

The objectives of fire management are to cost-effectively protect life, property, and resource values from undesired wildland fire, and use prescribed and wildland fire to achieve multiple-use management goals. The Worland District Fire Management Plan will be maintained and revised, as necessary, and implemented. The plan will address fire management on a watershed or landscape scale, in order to meet desired plant community and other resource management objectives identified in this RMP and in future activity plans. The use of minimal impact suppression techniques will restrict fire vehicles to existing roads and trails on public lands near the Legend Rock Petroglyph Site and within 0.25 mile of the high-water mark at Wardel Reservoir, to protect riparian habitat and a great blue heron rookery. Other travel restrictions will be considered in future activity planning. The construction of fire lines will be avoided if natural fire breaks can be used.

The use of bulldozers generally is prohibited in riparian and wetland areas, in areas of significant cultural resources or historic trails, and in important wildlife birthing areas. Fire retardant drops by air tankers are prohibited within 200 feet of water. The use of heavy equipment to construct fire lines and the use of chemical and dye retardants will be restricted or prohibited near rock art. Prescribed and wildland fire will be used to accomplish resource management objectives. When prescribed fires are planned, and when wildland fires are managed, the potential for habitat fragmentation will be evaluated. Actions that would disrupt or divide habitat blocks, other than temporarily, will be avoided. When fire and mechanical or biological treatments can be used effectively to manage vegetation, they will be preferred over chemical treatments. Surface-disturbing and disruptive activities associated with all types of fire management will be subject to appropriate mitigation developed through use of the mitigation guidelines.

No specific requirements or guidelines that are applicable to wolf mitigation are included for this resource in the RMP.

Effects Analysis

Fire management actions, particularly actions associated with wildfire suppression and prescribed fire, whether planned or unplanned, have the potential to occur in habitats occupied by wolves. Fire exclusion alters the natural mosaic of successional stages that promote open habitats and mixed shrublands favored by elk and other big game. This limits the function of fire in perpetuating vegetation conditions conducive to promoting elk and other big game forage.

Prescribed burns have typically been conducted to promote elk and other big game foraging areas by opening up forests and enhancing development of mixed shrubs. This would be beneficial to wolves by improving habitat for wolf prey. Prescribed fires in the vicinity of den sites could cause wolves to abandon the den site. This event is relatively unlikely.

Determination

Implementation of fire management actions, as presented in the Grass Creek RMP (1998) is **not likely to jeopardize the continued existence** of the wolf.

Forestland Management

Management Action

The objective of forestland management is to maintain and enhance the health, productivity, and biological diversity of forest and woodland ecosystems. Road construction for harvesting timber or for conducting forest management practices is prohibited on slopes greater than 25 percent, unless site-specific environmental analyses demonstrate that adverse effects can be mitigated or avoided. Skidder-type yarding is prohibited on slopes greater than 45 percent. Other logging operations on slopes steeper than 45 percent are limited to technically, environmentally, and economically acceptable methods such as cable yarding. Emphasis for silvicultural practices and timber harvesting will be placed on areas where forest health is the primary concern (including forests that are infested by mistletoe or mountain pine beetles). A variety of forest silvicultural and cutting methods will be used such as clearcutting, shelterwood, individual tree selection, and various regeneration treatments.

In important seasonal wildlife habitat areas, clearcuts generally will not exceed 300 yards (approximately 15 acres) in any direction. Wildlife escape cover will be maintained by keeping a corridor of trees around, or on one or more sides of, roads, clearcuts, parks, wetlands, and wallows. Trees and snags will not be cut if they provide important habitat for cavity or snag-nesting wildlife. When harvests are planned, the potential for habitat fragmentation will be evaluated. Actions that would disrupt or divide habitat blocks, other than temporarily, will be avoided. Slash disposal will be tailored to promote reforestation, minimize erosion, and allow ease of movement for wildlife. Forest products will be sold from limber pine and juniper woodland areas to meet public demand for posts, poles, firewood, and specialty wood consistent with wildlife habitat requirements. Harvesting firewood on public lands along desert waterways and the Bighorn and Greybull rivers is prohibited. Prescribed and wildland fire will be used to improve aspen stands, regenerate old age forest stands, manage for desired successional stages and forest species composition, and rehabilitate harvest areas. Surface-disturbing and disruptive activities associated with all types of forest management will be subject to appropriate mitigation developed through use of the mitigation guidelines.

No specific requirements or guidelines that are applicable to wolf mitigation are included for this resource in the RMP.

Effects Analysis

Forestland management actions occur in coniferous habitats, which are the same areas used by wolves and elk and other big game. However, especially in winter, elk and other big game and wolves tend to concentrate in lower elevation areas (Callaghan 2002). Timber management creates a patchwork pattern of forest stands. These openings enhance grass, forb, and shrub growth favored by elk and other big game, and thus timber management would favor wolves overall. There could be an impact to wolves if specific management actions occur at or near a den or rendezvous site, causing the wolves to abandon that site. Wolves suffer as a consequence of proximity to humans (from illegal snaring, poisoning, and shooting, among others) and new roads created for timber management can bring more people into a pack's territory.

Determination

Implementation of forest management actions, as presented in the Grass Creek RMP is **not likely to jeopardize the continued existence** of the wolf.

Hazardous Materials and Wastes Management

Management Action

No specific requirements or guidelines that are applicable to wolf mitigation are included for this resource in the RMP.

Effects Analysis

Activities associated with hazardous materials management will be restricted to roadways, where wolves will likely have become accustomed to some degree of human disturbance. These activities will likely be very limited in scale and infrequent in occurrence.

Determination

Implementation of hazardous materials management actions, as presented in the Grass Creek RMP (1998), is **not likely to jeopardize the continued existence** of the wolf.

Lands and Realty Management

Management Action

The BLM will pursue public access on important roads and trails identified in the BLM transportation plan. The transportation plan will be updated as necessary and implemented to provide access to large blocks of public land or to smaller parcels of land having high public values. The BLM will maintain or improve existing opportunities for public access in the upper Grass Creek area. Emphasis will be placed on acquisition of access to public lands on the Bighorn and Greybull rivers to enhance recreational opportunities and wildlife management. The BLM will pursue a combination of motorized and nonmotorized vehicle access in the Enos Creek, the upper Cottonwood Creek, and the upper South Fork of Owl Creek areas of the Absaroka Mountain foothills. Goals are to provide vehicle access to the South Fork of Owl Creek to improve fishing and other recreational opportunities and to acquire foot and horseback access to the Shoshone National Forest. All access will be limited seasonally and to specific routes as appropriate. The BLM will pursue limited motorized vehicle access on roads in the Red Canyon Creek area consistent with an overall objective to emphasize primitive recreation.

Access to specific areas may be closed or restricted to protect public health and safety. Before access is upgraded in the vicinity of important cultural, paleontological, natural history, wildlife habitat, or other sensitive resources, the security and protection of these resources will be carefully considered.

Before any public lands are exchanged or sold, or before the BLM would attempt to acquire any other lands in the planning area, the BLM will consult with county commissioners and other representatives of local government in the affected areas. Other affected and interested citizens will also be given opportunities to comment. About 1,220 acres will be considered for suburban expansion, community landfills, industrial and commercial development, and other public needs near the communities of Worland, Thermopolis, Meeteetse, and Basin. Agricultural trespass on public land generally will be resolved by prohibiting the unauthorized use; however, land sales, exchanges, or leases could resolve agricultural trespass in some cases. Leases might be used to develop the lands as wildlife food and cover areas. Proposals for sale, exchange, or transfer of public land will be subject to appropriate criteria. Priority will be given to landownership adjustments that meet community needs. The preferred method of adjusting landownership is exchange. Approximately 33,700 acres of public lands that are difficult or

uneconomic to manage will have priority consideration for public sale, Recreation and Public Purposes Act lease or patent, exchange, or transfer of jurisdiction to another agency. Proposals for the sale, exchange, or transfer of other public lands in the planning area will be considered on a case-by-case basis. Exchanges will be pursued to improve management of important seasonal wildlife habitat areas in the upper portions of Owl, Cottonwood, Gooseberry, and Grass creeks. Exchanges will be pursued along Gooseberry Creek, the upper portions of Cottonwood and Grass creeks, the Bighorn and Greybull rivers, and on lands where other riparian areas occur. The purposes for these exchanges will be to consolidate public land, enhance public access, and improve public land manageability. A cooperative management agreement will be pursued with private landowners to enhance and conserve the Legend Rock Petroglyph Site. Cooperative agreements or land exchanges to improve wild horse management will be pursued on about 12,000 acres of privately-owned land.

All coal and phosphate withdrawals and classifications on approximately 180,780 acres will be terminated and the lands will be returned to operation of the 1872 Mining Law. A locatable mineral withdrawal will be pursued on about 1,200 acres of public land to protect recreation and wildlife values on public river tracts along the Bighorn River. Locatable mineral withdrawals will be pursued within 0.5 mile of the Legend Rock Petroglyph Site and in the immediate vicinity of rock art in the Meeteetse Draw area near Thermopolis. A locatable mineral withdrawal will be pursued in the Upper Owl Creek ACEC on about 16,300 acres of public land to protect scenic values, wildlife habitat, soil, and water.

No specific requirements or guidelines that are applicable to wolf mitigation are included for this resource in the RMP.

Effects Analysis

Management of existing access and acquisition of new access to lands administered by BLM will not alter wolf behavior. Improved or new access to lands under new administration may result in positive effects to wolf habitats by securing these lands and managing them under BLM provisions.

Lands not under BLM jurisdiction that are suitable or occupied wolf habitats may be targeted for acquisition and subsequent management by BLM. Such acquisitions would provide benefits to wolves that may not be afforded under non-federal ownership.

Corridors are designated and managed to accommodate power lines, communication towers, pipelines, and roads. Roads can be a source of increased human activity, which can be a source of illegal snares, trapping, and shooting of wolves, and in mortality to resulting from collisions. The degree of these impacts is correlated with traffic volume and speed, and road width.

Determination

Implementation of land resource management actions, as provided in the Grass Creek RMP (1998) is **not likely to jeopardize the continued existence** of the wolf.

Livestock Grazing Management

Management Action

Important riparian habitat areas on public lands will be fenced to control the duration and timing of livestock use, if the condition of these areas is declining and other types of grazing management do not produce a favorable response. Access to water for use by livestock and wildlife will be provided. Surface-disturbing and disruptive activities associated with all types of range project construction and maintenance will be subject to appropriate mitigation developed through use of the mitigation guidelines.

No specific requirements or guidelines that are applicable to wolf mitigation are included for this resource in the RMP.

Effects Analysis

Domestic livestock grazing in riparian areas alters the structure and composition of aspen and riparian shrubs that also are used by moose and elk and other big game. Cattle grazing in broad floodplains and high-elevation meadows can compete with elk and other big game.

Determination

Implementation of livestock grazing management actions, as presented in the Grass Creek RMP (1998), is **not likely to jeopardize the continued existence** of the wolf.

Minerals Management

Management Action

The coal screening process (as identified in 43 CFR 3420.1-4) has not been conducted in the planning area. Interest in the exploration for, or the leasing of, federal coal will be handled case by case.

The entire planning area (about 1,171,000 acres of BLM-administered mineral estate) is open to oil and gas leasing consideration. About 20,200 acres of BLM-administered mineral estate are open to leasing consideration with a "no surface occupancy" stipulation.

All coal and phosphate withdrawals and classifications will be terminated and the lands involved will be returned to operation of the 1872 Mining Law. Except for specific areas identified as closed, the planning area is open to the staking of mining claims and operation of the mining laws for locatable minerals. A locatable mineral withdrawal will be pursued on about 1,200 acres of public land to protect recreation and wildlife values on tracts of public land along the Bighorn River. A locatable mineral withdrawal will be pursued on public lands within 0.5 mile of the Legend Rock Petroglyph Site and on public lands in the immediate vicinity of the rock art in the Meeteetse Draw area near Thermopolis. A locatable mineral withdrawal will be pursued in the Upper Owl Creek ACEC on about 16,300 acres of public land to protect scenic values, wildlife habitat, soil, and water.

Except for specific areas identified as closed, the planning area is open to consideration for sale of mineral materials (for example, sand and gravel) and related exploration and development activities. No topsoil will be sold. The Legend Rock Petroglyph Site and public lands within 0.5 mile are closed to the sale of sand and gravel and other mineral materials. Public lands in the Meeteetse Draw Rock Art Area are closed to the sale of sand and gravel and other mineral materials. The sale of sand and gravel will be avoided on public lands adjoining the Greybull and Bighorn rivers.

All parts of the planning area that are open to consideration for oil and gas leasing, exploration, and development are open to consideration for geophysical exploration subject to appropriate mitigation. On lands where surface-disturbing activities are prohibited or on lands closed to off-road vehicle (ORV) use, casual use geophysical exploration will be allowed.

No specific requirements or guidelines that are applicable to wolf mitigation are included for this resource in the RMP.

Effects Analysis

Construction of roads and pads, and increased vehicle traffic associated with mineral and geology exploration, development, and operation may lead to increases in vehicle collisions with wolves and increased intrusion by humans. Association with humans leads to higher wolf mortality due to easier access for illegal trapping, snaring, and shooting. Wolves avoid areas with high road densities. A road density threshold of 0.45 km/km² best classified pack and nonpack areas in one study (Mladenoff et al. 1995, 1999).

Determination

Implementation of minerals management actions, as presented in the Grass Creek RMP (1998), is **not likely to jeopardize the continued existence** of the wolf.

Off-Road Vehicle Management

Management Action

The objective for ORV management is to maintain or enhance opportunities for ORV use while avoiding adverse effects of vehicle travel on other resource values. Unless otherwise specified, ORV use on BLM-administered public land is limited to existing roads and trails. Motorized vehicle use is prohibited on wet soils and on slopes greater than 25 percent, when and where unnecessary damage to vegetation, soils, or water quality would result. Over-the-snow vehicles are subject to the same requirements and limitations as all other ORVs until activity planning specifically addresses their use. An open area for ORV "play" will be established west of Worland on about 900 acres. On areas designated as closed or limited to designated roads and trails, the off-road use of a motorized vehicle on public lands will be prohibited unless the use is otherwise authorized by a permit or license. Signs will be posted and maps or brochures will be published to explain this requirement.

No specific requirements or guidelines applicable to wolf mitigation are included for this resource in the RMP.

Effects Analysis

In areas designated as "closed" or "restricted," suitable foraging and denning habitats will likely receive little or no impacts from ORV use. In other areas, where ORV use is limited to existing trails, these definitions are sometimes loosely interpreted by the user group and new roads may be created as well as deepening of unofficial roads. Sometimes these roads become very abundant in some areas, fragmenting vegetation and reducing cover for elk and other prey. Increased access for humans may be a source of increased mortality for wolves by shooting, snaring, and trapping.

Determination

Implementation of ORV management actions, as presented in the Grass Creek RMP (1998), is **not likely to jeopardize the continued existence** of the wolf.

Recreation Management

Management Action

The objective of recreation management is to enhance opportunities for primitive recreation in some areas while increasing visitor services in other areas to meet needs for more developed forms of recreation. Special Recreation Management areas are designated on BLM-administered public lands in the Absaroka Mountain foothills, Badlands, and Bighorn River areas. All other public lands will be managed as an Extensive Recreation Management Area. Recreational uses of public lands along the Bighorn River for fishing, hunting, and float boating are managed under the Bighorn River Habitat and Recreation Area Management Plan. Emphasis will be placed on acquisition of access to public lands on the Bighorn and Greybull rivers to enhance recreational opportunities and wildlife management. Surface-disturbing and disruptive activities associated with the construction, maintenance, and use of roads, campgrounds, interpretive sites, and other recreational facilities will be subject to appropriate mitigation developed through use of the mitigation guidelines.

No specific requirements or guidelines applicable to wolf mitigation are included for this resource in the RMP.

Effects Analysis

Recreational areas are ones that humans frequent. In YNP, there has been some concern because people have fed wolves on several occasions, which could lead to a wolf bite and the subsequent necessity to eliminate the animal. However, this has occurred only occasionally, and in an area of high wolf concentration (Halfpenny 2004). Recreation areas that occur in good elk and other big game habitat may be used as access points for illegal trapping, shooting, and/or snaring of wolves. These areas also may be used for wolf viewing, which would not likely have effects of wolves and could deter illegal activities harmful to wolves.

Determination

Implementation of recreation resource management actions, as presented in the Grass Creek RMP (1998), is **not likely to jeopardize the continued existence** of the wolf.

Vegetation Management

Management Action

As appropriate, buffer zones for treatment of weeds will be provided along streams, rivers, lakes, and riparian areas, including riparian areas along ephemeral and intermittent streams. Treatments will avoid raptor and upland game bird nesting seasons and other times when loss of cover or disturbance by equipment could be detrimental. Projects that may affect threatened or endangered plants or animals will be postponed or modified to protect the presence of these species. In such cases, the BLM will consult with the U.S. Fish and Wildlife Service (USFWS) as required by the Endangered Species Act. Certified noxious weed-seed free vegetative products will be used on all BLM-administered public lands in the Grass Creek planning area.

The following objectives for desired plant communities (DPC) will be applied on an individual basis in consultation with land-use proponents and other affected or interested citizens. Actions required to achieve these objectives will normally be implemented through allotment management and other site-specific activity plans, and through reclamation plans for activities like pipeline construction, oil and gas exploration, and bentonite mining.

Desired plant communities are described according to the percentages of trees, shrubs, grasses, and forbs within each community. Descriptions are by weight estimate unless canopy cover percent is specified. Barren, alpine, and high gradient/rocky riparian communities are not discussed.

On at least 600,000 acres of public lands in the planning area (not containing important wildlife habitat) the following DPC objectives will emphasize watershed protection, forestland health, and livestock grazing:

- Salt Desert Shrub Communities: shrubs 30 to 60 percent, grasses 30 to 60 percent, forbs 5 to 15 percent, with shrubs increasing on high saline sites.
- Salt Bottom Communities: shrubs 20 to 40 percent, grasses 50 to 70 percent, forbs 5 to 15 percent.
- Basin Grassland/Shrub Communities: shrubs 10 to 20 percent, grasses 60 to 80 percent, forbs 10 to 20 percent.
- Foothills-Mountain Grassland/Shrub Communities: shrubs 10 to 30 percent, grasses 60 to 80 percent, forbs 10 to 20 percent.
- Low Gradient/Alluvial Riparian Communities, Canopy Composition: shrubs 0 to 15 percent, grasses and grasslikes 70 to 90 percent, forbs 5 to 15 percent.
- Intermediate Riparian Communities, Canopy Composition: trees and shrubs 10 to 30 percent, grasses and grasslikes 50 to 70 percent, forbs 10 to 30 percent.
- Desert Cottonwood Riparian Communities, Canopy Composition: trees and shrubs 10 to 30 percent, grasses and grasslikes 50 to 70 percent, forbs 10 to 30 percent.
- Woodland Communities: Same as Foothills-Mountain Grassland/Shrub Communities on areas where establishment of limber pine and juniper has occurred on deeper soils. There is no specific objective where woodlands occur on very shallow soils.
- Mixed Conifer/Deciduous Forest Communities: Promote overall species and structural diversity. Promote aspen growth in some areas, consistent with site-specific objectives for resource management, including commercial forest production. Manage 80 percent of forestlands for hiding and thermal cover (50 percent of these stands will have thermal cover characteristics). Ten percent of the forestlands will be managed for old growth.

No specific requirements or guidelines that are applicable to wolf mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with vegetation management, including increased human presence and use of machinery or fire to implement management actions, are not likely to disturb wolves. Wolves are generalists and will make use of any habitat type that contains prey (elk, moose, and deer). Vegetation management actions will improve forage for these prey species.

Determination

Implementation of the vegetation management actions, as presented in the Grass Creek RMP (1998), is

not likely to jeopardize the continued existence of the wolf.

Visual Resource Management

Management Action

No specific requirements or guidelines that are applicable to wolf mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with visual resource management will not directly impact wolves or their prey. The exclusion of some activities and structures from designated view sheds may have a secondary positive effect of limiting disturbance of habitats that may be used by wolves or their prey.

Determination

Implementation of visual management actions, as presented in the Grass Creek RMP (1998), is **not likely to jeopardize the continued existence** of the wolf.

Watershed/Soils Management

Management Action

No specific requirements or guidelines that are applicable to wolf mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with watershed and soil management will not negatively impact wolves or their prey. The watershed and soil improvement practices are likely to improve riparian vegetation and habitat which will benefit elk and other big game.

Determination

Implementation of watershed management actions, as presented in the Grass Creek RMP (1998), is **not likely to jeopardize the continued existence** of the wolf.

Wild Horse Management

Management Action

The objective of wild horse management is to maintain free-roaming wild horses in an ecological balance within the Fifteen Mile Wild Horse Herd Management Area (WHHMA). The herd area will be managed for an initial herd size of at least 70 and no greater than 160 mature animals. To the extent possible, horses will be managed at the lower end of this range during periods of drought. Long-term wild horse numbers will be established through monitoring, multiple-use allocations, and revision of the herd area activity plan. The Fifteen Mile Wild Horse Herd Gathering Plan will be kept up-to-date and implemented for roundups. Emphasis will be placed on gathering horses that wander outside the herd area or onto privately owned lands. Cooperative agreements or land exchanges to improve wild horse management will be pursued on about 12,000 acres of privately owned land. Livestock grazing in the herd area is limited to domestic sheep use during November through March, unless an environmental analysis indicates that another kind or time of use is appropriate. The watershed protection, forestland management, and livestock grazing DPC objective will be used in the herd management area. In the herd management area, grazing strategies will be designed to allow a combined forage utilization of 30 percent of the current year's growth in other plant communities that are grazed during the growing season. In the herd management area, combined forage utilization up to 40 percent of the current year's growth will be allowed in all plant communities that are grazed when plants are dormant. Wild horses will be allocated 2,300 AUMs of forage annually. The maximum allowable forage use by domestic livestock in the herd area will be 3,370 AUMs per year. Development of additional water sources in the herd area will be considered to improve horse distribution and manage forage utilization. Surface-disturbing and disruptive activities associated with wild horse management will be subject to appropriate mitigation developed through use of the mitigation guidelines.

No specific requirements or guidelines that are applicable to wolf mitigation are included for this resource in the RMP.

Effects Analysis

Actions associated with wild horse management are expected to be limited to occasional herding, corralling, and transporting of horses. These actions are not likely to disturb wolves unless they occurred at a den or rendezvous site during the denning period; this event is unlikely.

Determination

Implementation of wild horse management, as presented in the Grass Creek RMP (1998), is **not likely to jeopardize the continued existence** of the wolf.

Wildlife and Fish Habitat Management

Management Action

The objective of wildlife and fish habitat management is to maintain or enhance riparian and upland habitat, promote species diversity, and allow the expansion of wildlife and fish, where appropriate. The BLM will continue to work with the USFS, USFWS, WGFD, and the Wind River Indian Reservation in developing a healthy bighorn sheep herd in the Absaroka and Owl Creek mountains. Nest sites, roosts, cottonwood trees, and other potential critical habitats related to hunting and concentration areas for bald

eagles will be protected, especially along the Bighorn and Greybull rivers. As one measure to protect these habitats, firewood harvesting is prohibited on public lands in these areas.

The BLM will cooperate with the WGFD and local irrigators in negotiations directed at establishing minimum pool elevations for reservoirs with fisheries potential. Reservoirs and riparian areas will be maintained to improve or enhance potential fisheries. The BLM will encourage the design of reservoirs to enhance fisheries where potential exists. Consistent with the overall management objective to maintain or enhance fisheries habitat, existing game and nongame fish habitat will be protected and the BLM will consider the introduction of fish where habitat potential exists. Approximately 28 miles of stream habitat will be managed for game fish; 60 additional miles will be managed for nongame fish.

Effects Analysis

The implementation of management actions associated with wildlife habitat management will likely have positive effects by maintaining or improving existing habitat conditions for elk and other big game.

Determination

Implementation of wildlife habitat management actions, as presented in the Grass Creek RMP (1998), is **not likely to jeopardize the continued existence** of the wolf.

Area of Critical Environmental Concern Management

Management Action

The objective of managing the Upper Owl Creek Area as an ACEC is to protect overlapping and important big game habitats and migration corridors, fisheries habitat, shallow soils, alpine vegetation and rare plants, diverse cultural resources and Native American traditional values, primitive recreational opportunities, and high scenic quality. Management will include limiting or prohibiting surface-disturbing activities and closing the area to, and pursuing withdrawal from, the staking and development of mining claims to protect fragile soils, alpine tundra, important wildlife habitat, and scenic values. A detailed activity plan will be prepared for the Upper Owl Creek ACEC before the BLM approves any proposal for major surface-disturbing activity in the area. This activity plan will include assistance from the development proponent and other affected and interested citizens to determine whether some surface occupancy could be allowed in the area. Mitigation measures considered in the analysis will include access corridors and cluster development. For any mining claims with prior existing rights, a plan of operations will be required for all mining claim-related activities, other than casual use, in the Upper Owl Creek ACEC.

No specific requirements or guidelines that are applicable to wolf mitigation are included for this resource in the RMP.

Effects Analysis

Management actions associated with ACECs will not result in detrimental impacts to wolves or their habitats. These actions will result in positive effect to wolves by preventing harassment and disturbance to potentially suitable denning, travel, and foraging areas.

Determination

Implementation of the ACEC management actions, as presented in the Grass Creek RMP (1998), is **not likely to jeopardize the continued existence** of the wolf.

Summary of Determinations

The following is a summary of the effects determinations developed for each of the Grass Creek RMP management actions.

TABLE 9: SUMMARY OF DETERMINATIONS FOR THE GRASS CREEK RMP

Resource	Determination
Air Quality	Not likely to jeopardize the continued existence of the species
Cultural, Paleontological, and Natural History Resources	Not likely to jeopardize the continued existence of the species
Fire	Not likely to jeopardize the continued existence of the species
Forestland	Not likely to jeopardize the continued existence of the species
Hazardous Materials and Wastes	Not likely to jeopardize the continued existence of the species
Lands and Realty	Not likely to jeopardize the continued existence of the species
Livestock Grazing	Not likely to jeopardize the continued existence of the species
Minerals	Not likely to jeopardize the continued existence of the species
Off-road Vehicles	Not likely to jeopardize the continued existence of the species
Recreation	Not likely to jeopardize the continued existence of the species
Vegetation	Not likely to jeopardize the continued existence of the species
Visual Resources	Not likely to jeopardize the continued existence of the species
Watershed/Soils	Not likely to jeopardize the continued existence of the species
Wild Horse	Not likely to jeopardize the continued existence of the species
Wildlife and Fish Habitat	Not likely to jeopardize the continued existence of the species
ACECs	Not likely to jeopardize the continued existence of the species

Cumulative Effects

Cumulative effects include future State, tribal, local, or private actions that are reasonably certain to occur in the Grass Creek planning area. Existing and proposed activities on non-federal lands in the Worland planning area that could affect wolves or their habitats include:

Stockyard operations for cattle and sheep that provide carrion
 Oil and gas development on private lands
 Beet farming near and within riparian corridors.

Implementation of the Grass Creek RMP would not change any potential effects to the wolf that may result from current non-federal actions.